

A Message from the U.S. Environmental Protection Agency

Across America, the sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, which can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or result from oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. USEPA/ Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.



Calero Reservoir, photo courtesy of SCVWD.

SAFEGUARDING YOUR WATER SUPPLY

PROTECTING our water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use. Protection begins in the watersheds, where people and their activities can be a major cause of source contamination. Contamination requires additional treatment, which increases the cost to deliver water to your tap.

PARTICIPATING in public meetings and forums regarding water issues enables decision-makers to hear your perspective and allows you to be directly involved in protecting your water supply.

UNDERSTANDING that drinking water — including bottled water — may reasonably be expected to contain at least minute amounts of contaminants will help you make an informed choice about your drinking water. The presence of contaminants does not necessarily indicate a health risk.

IT'S EASY TO SAVE WATER

Tips for residents and businesses

- **Fix leaks promptly.** Some faucet and toilet leaks are simple enough to fix yourself. A free guide for fixing simple leaks is available at the Muni Water office or by calling (408) 363-4708.
- **Sign up for a Free Water-Wise House Call.** A trained technician will come to review your water use, help find leaks, install free water-saving devices, and provide advice on ways to save water in your home and garden. Call 1-800-548-1882.
- **You may qualify for a rebate if you upgrade to more water-efficient toilets or clothes washers, or if you replace your lawn.** For more information about the following programs, call the Santa Clara Valley Water District at (408) 265-2607, ext. 2554.

For Homes:
High Efficiency Toilet Rebate
High Efficiency Clothes Washer Rebate
Landscape Rebates

For Businesses and Apartment Complexes:
High Efficiency Toilet or Urinal Installation Program
Commercial Clothes Washer Rebate
Landscape Rebates

For more water conservation tips, visit www.sanjoseca.gov/waterconservation.

IN THE EVENT OF AN EARTHQUAKE, WILL YOU HAVE ENOUGH DRINKING WATER?

Keep a 3-day water supply just in case

- Each family member (including pets) needs 1 gallon per day
- Store **tap water** in food-grade plastic containers; replace every 6 months
- Store **bottled water** in the original sealed containers; replace every 6 months

If your supply runs out, you can treat your tap water

- **Boil it** for 3 minutes, *or disinfect* it by adding regular household bleach
- To disinfect: Add 8 drops of bleach per gallon of water. Shake or stir, then let it stand for 30 minutes

Information courtesy of San Francisco Public Utilities Commission. For more information, visit www.sfwater.org/BePrepared



About Us

THE SAN JOSE MUNICIPAL WATER SYSTEM is a City-owned water utility that has served customers since 1961. We are committed to delivering a reliable water supply that meets or exceeds all drinking water health standards.

Our office is open from 8:00 a.m. to 5:00 p.m., Monday through Friday (closed holidays). For more information, visit our website at www.sanjoseca.gov/muniwater or call 408-535-3500 (translation services are available).

In accordance with the Americans with Disabilities Act, City of San José Environmental Services Department materials can be made available upon request in alternative formats, such as Braille, large print, audiotape or computer disk. Requests may be made by calling 408-277-3671 (voice), 1-800-735-2929 (California Relay Service), or 408-294-9337 (TTY).

The City of San José is committed to open and honest government and strives to consistently meet the community's expectations by providing excellent service, in a positive and timely manner, and in the full view of the public.



Printed on recycled paper using soy-based inks. 0611/25,100/ImageX

Definitions

AL (Regulatory Action Level)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level)
The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technically feasible.

Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal)
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

MRDL (Maximum Residual Disinfectant Level)
The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal)
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NL (Notification Level)
Health-based advisory levels established by the CDPH for chemicals in drinking water that lack maximum contaminant levels.

PDWS (Primary Drinking Water Standard)
MCLs and MRDLs for contaminants that affect health along with their monitoring, reporting, and water treatment requirements.

PHG (Public Health Goal)
The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Source Water
Raw water that has not been treated to meet drinking water standards.

Treated Water
Water that has been treated to meet USEPA and CDPH drinking water standards.

Treatment Technique
A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations:

<	less than
AL	Action Level
CU	Color Unit
NA	Not Applicable
ND	Not Detected
NS	No Standard
NTU	Nephelometric Turbidity Units
pCi/L	pico Curies per liter
ppb	parts-per-billion (equals 1 microgram per liter (µg/L))
ppm	parts-per-million (equals 1 milligram per liter (mg/L))
TON	Threshold Odor Number
TT	Treatment Technique
µS/cm	microSiemens per centimeter

This brochure summarizes last year's water quality.

Included are details about where your water comes from, what it contains, and how it compares to drinking water standards

set by the U.S. Environmental Protection Agency (USEPA) and California Department of Public Health (CDPH).



2012 WATER QUALITY REPORT

ENVIRONMENTAL SERVICES DEPARTMENT ▪ SAN JOSE MUNICIPAL WATER SYSTEM
Delivering World Class Utility Services and Programs to Improve Our Health, Environment and Economy



San Jose Municipal Water System
Environmental Services Department
3025 Tuers Road
San José, CA 95121

2012 WATER QUALITY REPORT

This report contains important information about your drinking water. We hope it will provide the facts and perspective you need to make an informed evaluation of your tap water. To view a copy visit sanjoseca.gov/waterquality.

This report contains important information about your drinking water. 查看中文版請瀏覽 sanjoseca.gov/waterquality

This report contains important information about your drinking water. 한국어로 읽으시려면 sanjoseca.gov/waterquality로 가십시오.

Este informe contiene información muy importante sobre su agua potable. Para ver una copia en español visite la página de internet sanjoseca.gov/waterquality.

Mahalaga ang impormasyong ito. Upang makabasa ng kopya sa Tagalog, pumunta sa sanjoseca.gov/waterquality.

Chi tiet nay that quan trong. Để xem bản bằng tiếng Việt xin viếng sanjoseca.gov/waterquality.



The Source of Your Water

The San Jose Municipal Water System (Muni Water) serves the North San José, Alviso, Evergreen, Edenvale, and Coyote Valley communities of the City of San José. The source of your water depends on the service area in which you are located.

■ North San José/Alviso Service Area

Muni Water purchases a blend of Hetch Hetchy water and treated water from the San Francisco Public Utilities Commission (SFPUC) and delivers it to our Alviso and North San José customers. In 2012, the Hetch Hetchy Watershed provided most of the total SFPUC water supply, with supplementation by local watersheds in Alameda and Santa Clara counties. The major water source originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir where it is stored. Since this water source meets all federal and state criteria for watershed protection, disinfection treatment practices, bacteriological quality monitoring, and high operational standards, the State and USEPA have granted this water source a filtration exemption.

The Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio reservoirs. Prior to distribution, the water from these reservoirs is treated at the Sunol Valley Water Treatment Plant (SVWTP). Fluoridation, chloramination, and corrosion control treatment are provided for the combined Hetch Hetchy and SVWTP water at the Sunol Chloramination and Fluoridation facilities.

The SFPUC actively and aggressively protects the natural water resources entrusted to its care. An annual report on the Hetch Hetchy Watershed reflects the evaluation of its sanitary conditions, water quality, and potential contamination sources. The report also presents performance results of watershed management activities implemented by the SFPUC and partner agencies to reduce or eliminate potential contamination sources. The SFPUC also conducts sanitary surveys of the local watersheds every five years. These surveys identified wildlife and human activity as potential contamination sources. The reports are available for review through the CDPH San Francisco District office.

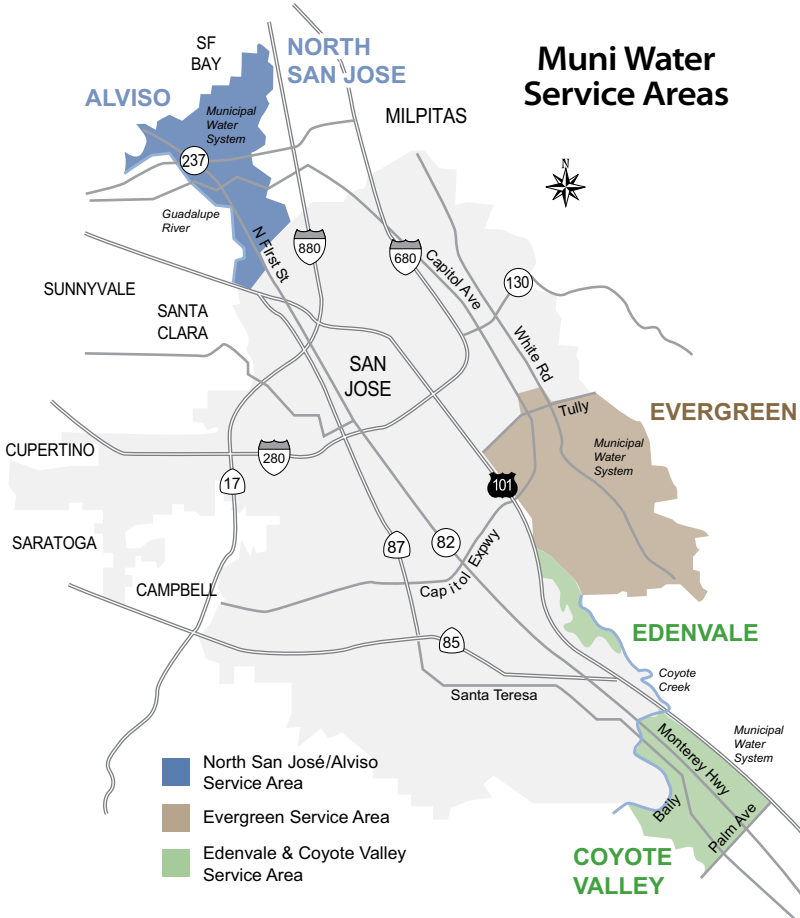
In 2011, the SFPUC began using ultraviolet (UV) light as an additional disinfection step for the Hetch Hetchy water supply. The new Tesla Treatment Facility uses state-of-the-art UV treatment equipment to provide advanced disinfection for the Hetch Hetchy supply in the Regional Water System which serves 2.5 million customers. The facility was built to comply with the USEPA regulation that required an additional disinfectant by April 2012 to protect the water supply from the Cryptosporidium parasite. The facility can treat up to 315 million gallons of water per day – making it the largest UV drinking water treatment plant in California and the third largest in the U.S.

Local groundwater from deep water wells is available for supplemental or emergency supply. However, the North San José wells were not used in 2012.

Muni conducted a one-time source water assessment of the wells in January of 2003.*

■ Evergreen Service Area

Muni Water purchases treated surface water from the Santa Clara Valley Water District (SCVWD) and delivers it to our Evergreen customers. SCVWD surface water is mainly imported from the South



Local groundwater from deep water wells is available for emergency supply. The Evergreen wells were not used in 2012. Muni Water conducted a one-time source water assessment for the Evergreen wells in January 2003.*

■ Edenvale Service Area

Groundwater from deep water wells provides 100 percent of the supply for this service area. Muni Water conducted a one-time source water assessment for the Edenvale wells in January 2003.* Although the source is considered potentially vulnerable to chemical and petroleum processing activities, no contaminants associated with these activities have been detected.

■ Coyote Valley Service Area

Groundwater from deep water wells provides 100 percent of the supply for this service area. An assessment of these wells was conducted in June 2004,* and potable use of the groundwater began in 2005. Although the source is considered potentially vulnerable to agricultural drainage, unauthorized dumping, storage tank leaks, and sewer collection systems, no contaminants associated with these activities have been detected. Precautions taken during construction, in combination with the local hydrology, have protected the existing well locations from contamination.

**For information about the type of contaminants tested or to get a copy of the groundwater well assessment reports for your service area, please contact a Water Quality Engineer at 408-277-3671.*

Water Quality

Coliforms, reported as “Total Coliform,” are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Standards for compliance vary depending on the size of the distribution system. In larger systems (including Evergreen, Edenvale, and Coyote Valley), 95 percent of all samples taken each month must be free of coliforms. In smaller systems (including North San José and Alviso), no more than one sample per month may test positive for the presence of coliforms.

In May 2012, over one hundred routine samples were taken in the drinking water system which includes the Evergreen, Edenvale, and Coyote Valley service areas. Seven samples from the Coyote service area, or 5.2% of total samples taken during May indicated the presence of coliform bacteria, which is more than allowed and was a warning of potential problems. Temporary disinfection of the service area was performed to help in cleaning the distribution system piping, and to help in eliminating any total coliform bacteria present in the piping system. Further testing shows that the water meets all State and Federal regulations.

Disinfection of surface water is necessary to destroy disease-causing organisms for the protection of public health. In Evergreen, North San José, and Alviso, water is disinfected using chloramine. Except for a slight chlorinous taste or odor, chloramine is not harmful to the general public. However, it must be removed for kidney dialysis machines and aquariums. If you are receiving kidney dialysis treatment, please contact your doctor or dialysis technician. For pet fish, contact your local fish store for more information about special water treatment.

Fluoride is added to the naturally occurring level in Evergreen, North San José, and Alviso to help prevent dental cavities in consumers. The Evergreen community approved fluoridation with an advisory vote in the early 1960s.



The SFPUC System-Wide Fluoridation Project (affecting North San José and Alviso) became operational in November 2005. The fluoride levels in the treated water are maintained within the range required by state regulations. At present, additional fluoride is not added in Edenvale or Coyote Valley service areas. Consult your doctor or dentist if you are considering additional fluoride supplements or treatments.

Hardness consists mainly of calcium and magnesium salts. Although it does not pose a health risk, it may be considered undesirable for other reasons. Some benefits to reducing hardness by using water softeners are reductions in soap usage, longer life for water heaters, and less incrustation of pipes. Some disadvantages are an increase in sodium intake (depending on type of softener used), proper maintenance/servicing requirements, and potential adverse affects on plants and landscaping.

Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the water treatment process. The turbidity standard for unfiltered supplies (e.g., Hetch Hetchy) is 5 NTU. The turbidity for filtered water supplies (e.g., SCVWD treated water) must be less than 0.3 NTU 95 percent of the time, and at no time higher than 1 NTU.

Cryptosporidium is a parasitic microbe found in most surface water. The SFPUC regularly tests for this water-borne pathogen, and found it at very low levels in source water and treated water in 2012. However, current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Ingestion of *Cryptosporidium* may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Lead, if present at elevated levels, can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Muni Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

2012 Water Quality Data

Water at various locations in the distribution system is tested by certified City staff and a private, state-certified laboratory using the latest testing procedures and equipment. During 2012, numerous tests were conducted on samples taken from the distribution system. In addition to these tests, the SCVWD and SFPUC perform their own water quality analyses of the source and treated water.

Test results from the distribution system and source water analyses are shown in the table at right. Some of the data, though representative, are more than one year old. CDPH allows monitoring for some contaminants less than once per year since the concentrations of these contaminants do not change frequently.

Lab analysis was also performed for many constituents other than those listed in the tables; only those chemicals detected in the tap water are shown. For a complete list of all the chemicals analyzed or any questions about this report, please contact a Water Quality Engineer at 408-277-3671.

Primary Drinking Water Standards — Public Health-Related Standards

Parameter	Unit	MCL (MRDL) [AL]	PHG (MCLG) [MRDLG]	Evergreen (SCVWD Treated Water)		Edenvale (Groundwater)		Coyote Valley (Groundwater)		North San Jose/Alviso (SFPUC Treated Water)		Typical Source
Inorganic Chemicals				Average	Range	Average	Range	Average	Range	Average	Range	
Aluminum	ppm	1	0.6	ND	ND - 0.083	ND ^b	ND	ND ^c	ND	ND	ND - 0.090	1
Barium	ppm	1	2	ND	ND	0.1 ^b	0.1 - 0.1	ND ^c	ND	ND	ND	1
Fluoride	ppm	2	1	0.8	0.7 - 1.2	0.2 ^b	0.2 - 0.2	0.13 ^c	0.13 - 0.13	1.0	0.4 - 1.3	1, 2
Nitrate (as NO3)	ppm	45	45	ND	ND - 2	10	8 - 12	1.5	1.4 - 1.6	ND	ND	1, 3
Organic Chemicals												
Total Trihalomethanes ^d	ppb	80	NS	45	25 - 43	NA	NA	NA	NA	56.4	27 - 52	4
Total Haloacetic Acids ^d	ppb	60	NS	10.4	ND - 5.5	NA	NA	NA	NA	36.7	26 - 44	4
Total Organic Carbon	ppm	TT	NS	1.77	1.65 - 1.88	NA	NA	NA	NA	2.7	2.3 - 3.7	15
Disinfection												
Chloramine (as chlorine) ^a	ppm	(4)	[4]	1.60	0.03 - 3.2	NA	NA - 2.7*	NA	NA - 3.4**	2.49	1.39 - 3.30	5
Microbiological												
<i>Giardia lamblia</i>	cyst/L	TT	(0)	ND	ND	NA	NA	NA	NA	Max = 0.06	ND - 0.06	6
				Highest %	Range	Highest %	Range	Highest %	Range	Highest #	Range	
Total Coliform ^a	% pos per month	5	(0)	5.2***	0 - 5.2	5.2***	0 - 5.2	5.2***	0 - 5.2	NA	NA	6
	# pos per month	1	(0)	NA	NA	NA	NA	NA	NA	1	0 - 1	6
Clarity												
Turbidity (unfiltered sources)	NTU	5	NS	NA		NA	NA	NA	NA	Highest Level = 2.8		7
Turbidity (filtered sources)	NTU	1	NS	Highest Level = 0.09 ^a		NA	NA	NA	NA	Highest Level = 0.26 ^a		7
90th Percentile (# Samples Exceeding AL)												
Lead ^a	ppb	[15]	0.2	ND	(0 of 52)	ND	(0 of 52)	ND	(0 of 52)	ND	(0 of 36)	8
Copper ^a	ppb	[1300]	300	110	(0 of 52)	110	(0 of 52)	110	(0 of 52)	58	(0 of 36)	8

Secondary Drinking Water Standards — Aesthetic Standards

Parameter	Unit	MCL	Average	Range	Average	Range	Average	Range	Average	Range	Typical Source
Chloride	ppm	500	67	61 - 73	46 ^b	45 - 47	47 ^c	45 - 48	12.3	2 - 20	9, 10
Color	CU	15	ND	ND	ND ^b	ND	ND ^c	ND	ND	ND - 7	11
Odor	TON	3	1	1 - 1	ND ^b	ND	1 ^c	ND - 1	ND	ND	11
Specific Conductance	µS/cm	1600	470	434 - 516	680 ^b	670 - 690	565 ^c	560 - 570	202	31 - 344	10, 14
Sulfate	ppm	500	47	43 - 51	47 ^b	46 - 47	35 ^c	34 - 36	20	0.9 - 40	9, 12
Total Dissolved Solids	ppm	1000	263	244 - 274	395 ^b	390 - 400	330 ^c	330 - 330	108	ND - 195	9
Turbidity	NTU	5	0.06	0.04 - 0.07	0.13 ^b	0.12 - 0.13	0.58 ^c	0.35 - 0.81	0.1	0.1 - 0.2	7

Other Water Quality Parameters

Parameter	Unit	MCL	Average	Range	Average	Range	Average	Range	Average	Range
Boron	ppb	NS	138	135 - 141	NA	NA	NA	NA	NA	NA
Calcium	ppm	NS	19	18 - 20	44 ^b	41 - 47	44 ^c	43 - 44	15	3 - 28
Hardness (as CaCO3) ^f	ppm	NS	96	93 - 98	295 ^b	290 - 300	245 ^c	240 - 250	62	8 - 114
Magnesium	ppm	NS	11	11 - 12	46 ^b	42 - 49	34 ^c	32 - 35	6.1	0.2 - 10.8
pH	-	NS	7.6	7.4 - 7.8	7.9 ^b	7.9 - 7.9	7.9 ^c	7.9 - 7.9	8.5	6.7 - 9.7
Potassium	ppm	NS	2.7	2.6 - 2.9	NA	NA	NA	NA	NA	NA
Silica	ppm	NS	10	7 - 12	NA	NA	NA	NA	4.1	3.2 - 5.3
Sodium	ppm	NS	49	46 - 52	29 ^b	28 - 29	20 ^c	19 - 21	15.7	3 - 25

* Temporary chlorination was performed during March 2012 and October 2012 for maintenance purposes. No chlorine was present in the service area during the remainder of the year.
** Temporary chlorination was performed during September 2012 for maintenance purposes. No chlorine was present in the service area during the remainder of the year.
*** For more coliform information, refer to the Water Quality section of this brochure.

NOTES:
a Distribution system data in 2012
b Well data in 2011
c Well data in 2010
d Distribution system data in 2012. Running averages are calculated from data for previous quarters that are not shown in this table.
e Filtered water turbidity required to be < 0.3 NTU in 95% of samples. All filtered water sources met this standard
f To convert hardness from ppm to grains per gallon, divide by 17.1.

TYPICAL SOURCES IN DRINKING WATER:
1 Erosion of natural deposits
2 Water additive that promotes strong teeth
3 Runoff/leaching from fertilizers
4 By-product of drinking water disinfection
5 Added for disinfection
6 Naturally present in the environment
7 Soil runoff
8 Internal corrosion of household plumbing systems
9 Runoff/leaching of natural deposits
10 Seawater influence

11 Naturally-occurring organic material
12 Industrial waste
13 Industrial discharges
14 Substances forming ions in water
15 Various natural and manmade sources
16 Naturally occurring
17 Human/animal fecal waste
18 Discharge from steel and pulp mills, chrome plating
19 Discharge from metal factories

See back panel
for definitions and
abbreviations used
in this table.